AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-39 (Canceled)

Claim 40 (currently amended) A recombinant adenoviral vector derived from a human adenovirus comprising an exogenous nucleotide sequence encoding all or part of an antibody ~~directed against~~ capable of recognizing a tumor antigen or an epitope specific for an infectious and pathogenic organism, wherein said antibody is modified at the N-terminus by fusion to extracellular domains I and II of CD4, and wherein said exogenous nucleotide sequence is under the control of elements necessary for expression of said modified antibody.

Claim 41 (previously presented) The recombinant adenoviral vector according to Claim 40, wherein said antibody is selected from the group consisting of a native antibody, a chimeric antibody, an antibody fragment and a bispecific antibody.

Claim 42 (previously presented) The recombinant adenoviral vector according to Claim 40, wherein said antibody is further modified by fusion at the C-terminus to a toxic substance selected from a ribonuclease, ricin, diphtheria toxin, cholera toxin, herpes simplex virus thymidine kinase, cytosine deaminase from Escherichia coli or from a yeast of the genus Saccharomyces, exotoxin from Pseudomonas and human angiogenin or an analog of the said substances.

Claim 43 (canceled)

Claim 44 (currently amended) A recombinant adenoviral vector derived from a human adenovirus comprising an exogenous nucleotide sequence encoding all or part of one or more protein or proteins of interest capable of forming a multimer, in a host cell; wherein ~~said~~ at least one said protein of interest comprises a heavy chain and a light chain of an antibody ~~modified at the N-terminus by fusion to extracellular domains I and II of CD4 and directed against~~ capable of recognizing a tumor antigen or an epitope specific for an infectious and pathogenic organism, wherein said at least one protein of interest is modified at the N-terminus by fusion to extracellular domains I and II of CD4, and wherein said heavy and light chains associate in a tetramer after synthesis in the host cell, said exogenous nucleotide sequence being placed under the control of the elements necessary for its expression.

Claim 45 (canceled)

Claim 46 (previously presented) The recombinant adenoviral vector according to Claim 40, wherein it is defective for replication.

Claim 47 (previously presented) The recombinant adenoviral vector according to Claim 46, wherein it lacks at least all or part of the E1 region and, optionally, all or part of the E3 region.

Claim 48 (canceled)

Claim 49 (canceled)

Claim 50 (canceled)

Claim 51 (currently amended) The recombinant adenoviral vector according to Claim 40, wherein the elements necessary for the expression comprise a promoter selected from the group consisting of the adenoviral early promoter E1A, the late promoter MLP (Major Late Promoter), the murine or human PGK (Phosphoglycerate kinase) promoter, the SV40 virus early promoter, the RSV (Rous Sarcoma virus) virus promoter, and a tumor-specific promoter.

Claim 52 (previously presented) An infectious viral particle comprising a recombinant adenoviral vector according to Claim 40.

Claim 53 (previously presented) A eukaryotic host cell comprising a recombinant adenoviral vector according to Claim 40.

Claim 54 (previously presented) A pharmaceutical composition comprising a recombinant adenoviral vector according to Claim 40, in association with a pharmaceutically acceptable carrier.

Claim 55 (currently amended) The pharmaceutical composition according to Claim 54, comprising ~~104 to 1014~~ 10^4 to 10^{14} pfu.

Claim 56 (previously presented) The pharmaceutical composition according to Claim 54, wherein it is in injectable form.

Claim 57 (previously presented) The recombinant adenoviral vector according to Claim 44, wherein it is defective for replication.

Claim 58 (currently amended) The recombinant adenoviral vector according to Claim 44, wherein the elements necessary for the expression comprise a promoter selected from the group consisting of the adenoviral early promoter E1A, the late promoter MLP (Major Late Promoter), the murine or human PGK (Phosphoglycerate kinase) promoter, the SV40 virus early promoter, the RSV (Rous Sarcoma virus) virus promoter, and a tumor-specific promoter.

Claim 59 (canceled)

Claim 60 (currently amended) A recombinant adenoviral vector derived from a human adenovirus comprising an exogenous nucleotide sequence encoding all or part of an antibody ~~directed against~~ capable of recognizing a tumor antigen or an epitope specific for an infectious and pathogenic organism, wherein said antibody is modified by fusion to a toxic substance at the C terminus and an immunopotentiating substance at the N-terminus by fusion to extracellular domains I and II of CD4, and wherein said exogenous nucleotide sequence is under the control of elements necessary for expression of said modified antibody.